

[illegible]

### Abstract of the Disclosure

A method for generating digital filters for tuning a hearing aid to enhance hearing ability. Data is provided, for a range for a target response curve representative of enhanced hearing ability of sound level versus frequency. Second digital data is also generated, for an initial response curve or audiogram of an individual's hearing ability. The first digital data is compared with the second digital data and it is determined whether the initial response curve is within the tolerance range. If not, digital audio filters are iteratively generated, and the digital audio filters are applied to digital data representing received sound signals to generate third digital data to enhance hearing. Parameters of the digital audio filters are automatically optimized until the compensated response curve is within the tolerance range or a predetermined number of digital audio filters has been reached.